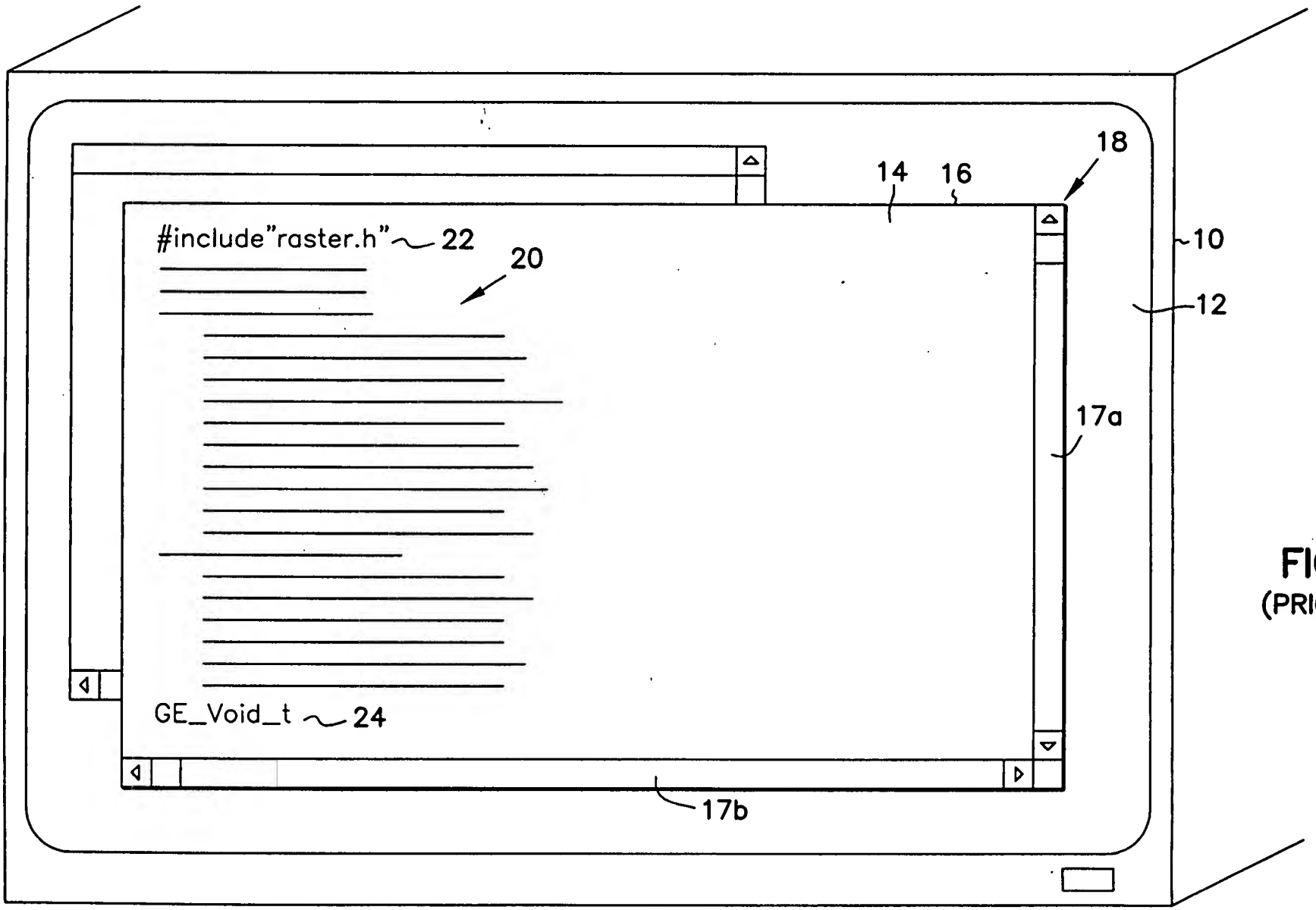

FIG. 1
(PRIOR AR

```
# include "raster.h" — 22
# include "clip.h"
# include "xform.h"
#include <assert.h>
GE_Void_t
ge_ClipInit ( GE_Context_t* GEContext )
{
        GE_ClipEquation_t default_equation = {0, 0, 0, 0};
        GE_Dword_t i;
        for (i = 0;  i < GE_MAX_CLIP_PLANES;  i ++)  {
                GEContext->Clip.EyeEq (i) = default_equation;
                GEContext->Clip.PlaneDefault (i) = 1;
                GEContext->Clip.PlaneOn (i)  =  -1;
        }
        GEContext->Clip.NPlanes = 0;
        GEContext->Clip.PlaneOnFlag = 0;
} /* ge_ClipInit */
GE_Void_t
ge_ClipValidate ( GE_Context_t* GEContext )
        GE_FuncTable_t*          table = GEContext->currentTable;
        if   (  (GEContext->StateType & GE_CLIPPING) &&
                  ( GEContext->Clip.Nplanes 1 = 0 )    )  {
                GEContext->geClipCodeUser = table ->ClipFn [GE_FN_CLIP_USER];
                GEContext->geClipPlaneToObject = table->ClipFn [GE_FN_CLIP_EYE_TO_OBJ];
        } else {
                GEContext->geClipCodeUser = table->ClipFn [GE_FN_CLIP_DEFAULT];
                GEContext->ClipPlaneToObject = table->ClipFn [GE_FN_CLIP_DEFAULT];
        }
        if    (GEContext->StateType & GE_CLIP_VOLUME)    {
                GEContext->geClipCodeView = table->ClipFn [GE_FN_CLIP_VIEW];
        } else {
                GEContext->geClipCodeView = table->ClipFn [GE_FN_CLIP_DEFAULT];
        }
}      — 24
GE_Void_t
                                                                       20
```

FIG. 2 (PRIOR ART)

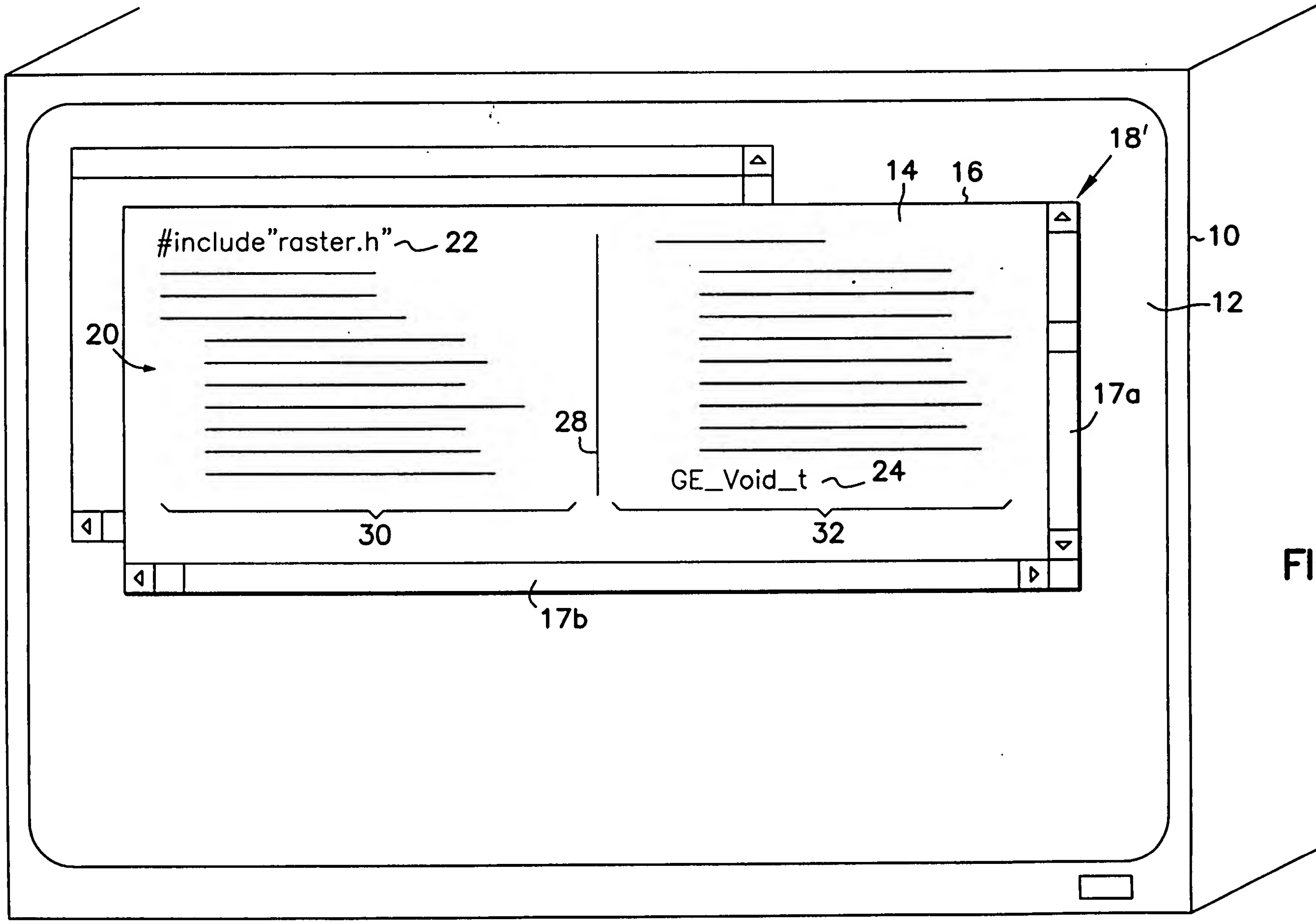

FIG. 3A

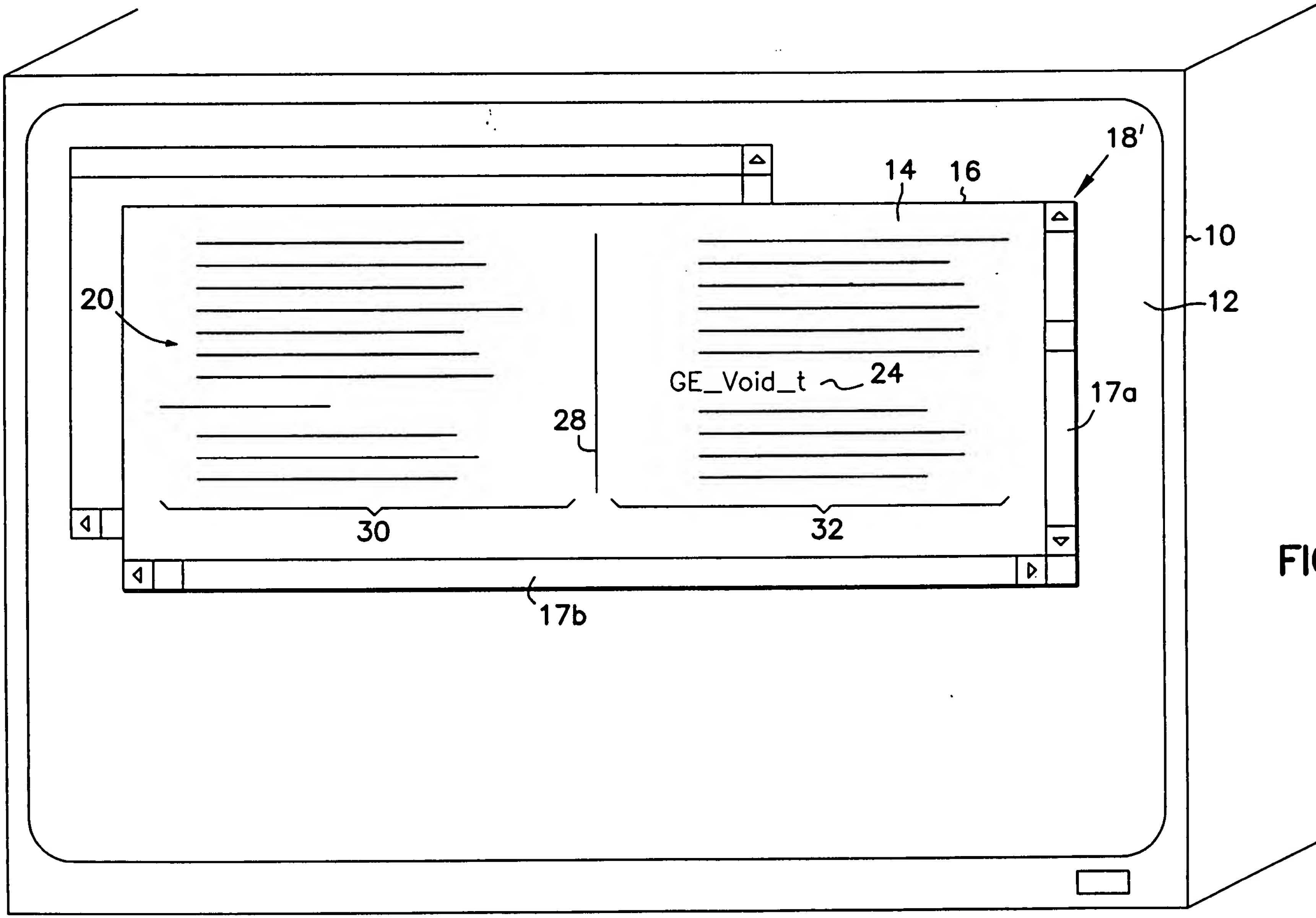

FIG. 3B

```
# include "raster.h"
# include "clip.h"
# include "xform.h"
# include <assert.h>

GE_Void_t
ge_ClipInit ( GE_Context_t* GEContext )
{
        GE_ClipEquation_t default_equation = { 0, 0, 0, 0 };
        GE_Dword_t i;

        for (i=0; i<GE_MAX_CLIP_PLANES; i++)  {
                GEContext->Clip.EyeEq[i] = default_equation;
                GEContext->Clip.PlaneDefault[i] = 1;
                GEContext->Clip.PlaneOn [i] =  -1
        }

        GEContext->Clip.NPlanes = 0;
        GEContext->Clip.PlaneOnFlag = 0;

} /* ge_ClipInit */
```

FIG 4L

```
GE_Void_t
ge_ClipValidate ( GE_Context_t* GEContext )
{

        GE_FuncTable_t*             table = GEContext->currentTable;
        if ( ( GEContext->StateType & GE_CLIPPING ) &&
                        (GEContext->Clip.NPlanes 1 = 0) ) {
                GEContext->geClipCodeUser = table->ClipFn[GE_FN_CLIP_USER];
                GEContext->geClipPlaneToObject = table->ClipFn[GE_FN_CLIP_EYE_TO_OBJ];
} else {
                GEContext->geClipCodeUser = table->ClipFn[GE_FN_CLIP_DEFAULT];
                GEContext->geClipPlaneToObject = table->ClipFn[GE_FN_CLIP_DEFAULT];
}
if (GEContext->StateType & GE_CLIP_VOLUME) {
                GEContext->geClipCodeView = table->ClipFn[GE_FN_CLIP_VIEW];
} else {
                GEContext->geClipCodeView = table->ClipFn[GE_FN_CLIP_DEFAULT];
        }

}
                24
GE_Void_t
```

FIG. 4R

```
GE_Void_t
ge_ClipInit ( GE_Context_t* GEContext )
{
        GE_ClipEquation_t default_equation = {0, 0, 0, 0);
        GE_Dword_t i;

        for {i = 0; i<GE_MAX_CLIP_PLANES; i++)   {
              GEContext->Clip.EyeEq[i] = default_equation;
              GEContext->Clip.PlaneDefault[i] = 1;
              GEContext->Clip.PlaneOn[i] =  -1;
        }

        GEContext->Clip.NPlanes = 0;
        GEContext->Clip.PlaneOnFlag = 0;

} /* ge_ClipInit */

GE_Void_t
ge_ClipValidate ( GE_Context_t* GEContext )

{

        GE_FuncTable_t*     table = GEContext->currentTable;
```

FIG. 5L

```
        if  (  ( GEContext->StateType & GE_CLIPPING )  &&
                    (GEContext->Clip.NPlanes 1 = 0 )  )  {
                GEContext->geClipCodeUser = table->ClipFn [GE_FN_CLIP_USER];
                GEContext->geClipPlaneToObject = table->ClipFn{GE_FN_CLIP_EYE_TO_OBJ];

        }  else  {
                GEContext->geClipCodeUser = table ->ClipFn[GE_FN_CLIP_DEFAULT];
                GEContext->geClipPlaneToObject = table ->ClipFn [GE_FN_CLIP_DEFAULT];
        }
        if (GEContext->StateType & GE_CLIP_VOLUME)  {
                GEContext->geClipCodeView = table ->ClipFn[GE_FN_CLIP_VIEW];
        }  else  {
                GEContext->geClipCodeView = table ->ClipFn [GE_FN_CLIP_DEFAULT];
        }
                24
GE_Void_t
ge_ClipEnable (  GE_Context_t* GEContext, GE_Dword_t plane  )
{

                if ( GEContext->Clip.PlaneOnflag & (1 << plane)  )  {
                        /* Plane allredy on */
```

FIG. 5R

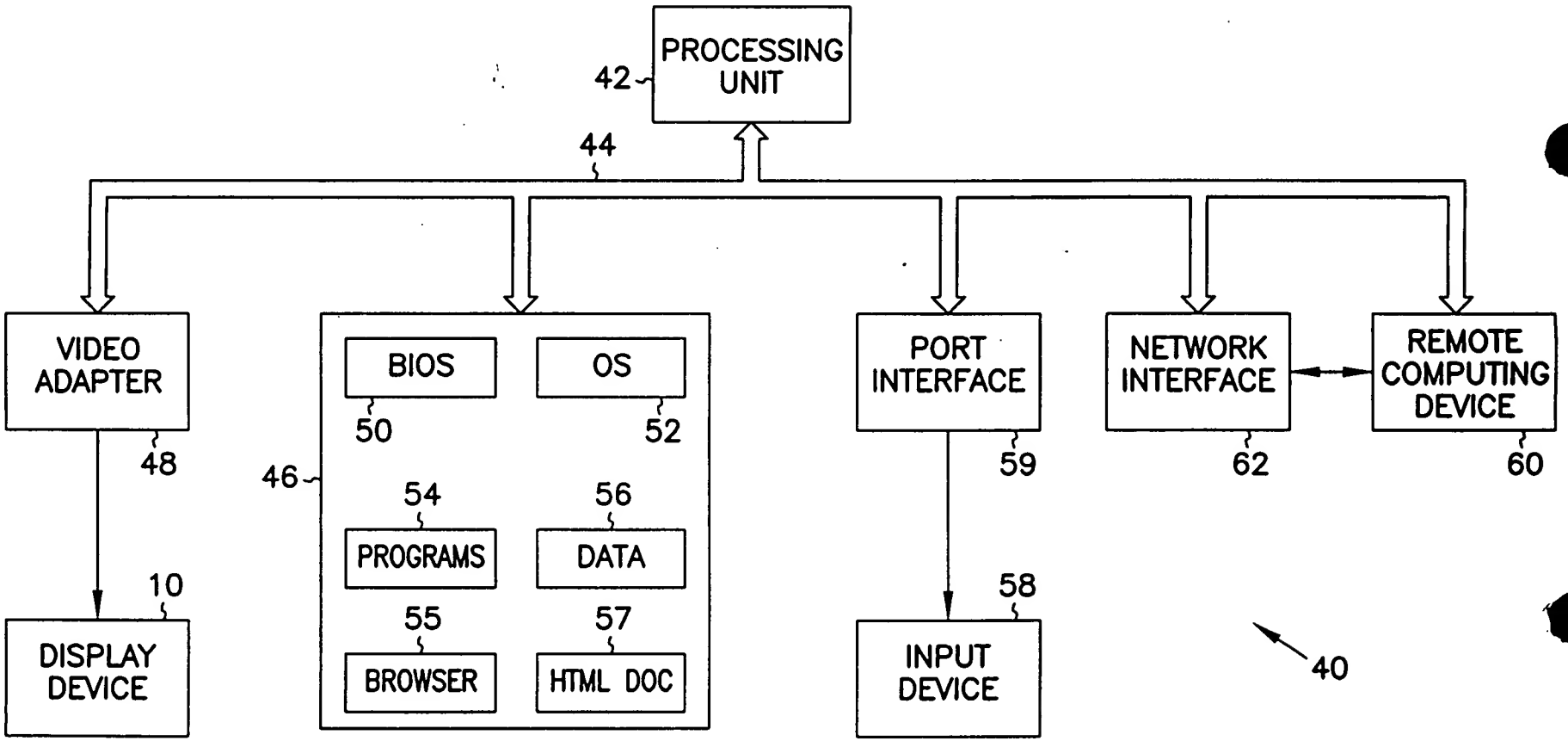

FIG. 6